

## CLAIM AMENDMENTS

### Claim Amendment Summary

#### **Claims pending**

- At time of the Action: Claims 1-21, 24-33, 42, 45-51, 54-58.
- After this Response: Claims 1-21, 24-33, 42, 45-51, 54-58.

**Canceled or Withdrawn claims:** none.

**Amended claims:** none.

**New claims:** none.

### Claims:

1. **(PREVIOUSLY PRESENTED)** A method for automatic production of one or more sets of instructions for an input filter of a computer system, the method comprising:

obtaining input-description-data, which define the properties of valid input directly provided by a computing component without human intervention;

transforming the input-description-data into a data structure, wherein the data structure is an organized representation of the input-description-data;

from the organized representation of the input-description-data of the data structure, automatically generating a set of instructions for filtering input directly provided by a computing component without human intervention based upon the properties of valid input defined by the input-description-data.

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1       2.    **(ORIGINAL)**   A method as recited in claim 1, wherein the  
2 generating comprises translating the organized representation of the input-  
3 description-data of the data structure into the set of instructions.

4       5.    **(ORIGINAL)**   A method as recited in claim 2, wherein the  
5 translating comprises:

6       parsing the organized representation of the input-description-data of the  
7 data structure to acquire the input-description-data;

8       synthesizing the set of instructions based upon the input-description-data  
9 acquired by the parsing.

10      11     4.    **(PREVIOUSLY PRESENTED)**   A method as recited in  
12 claim 1 further comprising storing the data structure in a persistent form.

13      14     5.    **(ORIGINAL)**   A method as recited in claim 1, wherein the data  
15 structure is in a hierarchical markup language.

16      17     6.    **(ORIGINAL)**   A method as recited in claim 1, wherein the set  
18 of instructions as an input filter.

19      20     7.    **(ORIGINAL)**   A method as recited in claim 1 further  
21 comprising loading the set of instructions as an input filter.

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1           8. (ORIGINAL) A method as recited in claim 1, wherein the set  
2 of instructions is generated with regard to filtering input for an application  
3 program module.

4  
5           9. (ORIGINAL) A method as recited in claim 1, wherein input-  
6 description-data define the properties of input selected from a group consisting of  
7 valid input only, invalid input only, and both valid and invalid input.

8  
9           10. (ORIGINAL) A method as recited in claim 1, wherein the  
10 properties of valid input indicate parameters of input by defining boundary  
11 delimitations of such parameters and define assumptions regarding such  
12 parameters.

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14          11. (ORIGINAL) A method as recited in claim 1, wherein during  
15 the obtaining, input-description-data is obtained from a user via a graphical user  
16 interface.

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4 0530051718 G:\MS1-0744us\MS1-744us.m02\FinalOA.Respond.doc  
en: Kasey C. Christie

1       **12. (ORIGINAL)** A computer system comprising:  
2           an application program module configured to receive and respond to input  
3           provided by a computing component;  
4           an input filter module configured to receive input provided by a computing  
5           component for the application program module, filter the input, and pass the  
6           filtered input to the application program module,  
7           wherein the filter comprises one or more sets of instructions that, when  
8           executed, filter the input and such sets of instructions being automatically  
9           produced according to the method as recited in claim 1.

10  
11       **13. (ORIGINAL)** A computer system as recited in claim 12,  
12           wherein the computer system comprises a Web server.

13  
14       **14. (ORIGINAL)** A computer system as recited in claim 12,  
15           wherein the input filter module is further configured to receive input from the  
16           computing component via a communications network.

17  
18       **15. (ORIGINAL)** A computer-readable medium comprising a set  
19           of instructions for filtering input, wherein such set of instructions has been  
20           automatically produced by the method as recited in claim 1.

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1           16. (ORIGINAL) An input filter of a computer having computer-  
2 executable instructions that, when executed, filter input, wherein such computer-  
3 executable instructions were automatically produced by the method as recited in  
4 claim 1.

5  
6           17. (ORIGINAL) A computer comprising one or more computer-  
7 readable media having computer-executable instructions that, when executed by  
8 the computer, perform the method as recited in claim 1.

9  
10          18. (ORIGINAL) A computer-readable medium having computer-  
11 executable instructions that, when executed by a computer, performs the method  
12 as recited in claim 1.

13  
14          19. (PREVIOUSLY PRESENTED) A method facilitating  
15 speedy and efficient production of one or more sets of instructions for an input  
16 filter of a computer system, the method comprising:

17           obtaining input-description-data, which define the properties of valid input  
18 provided by a computing component;

19           transforming the input-description-data into a data structure;

20           storing the data structures in a persistent form;

21           automatically generating a set of instructions for filtering input provided by  
22 a computing component based upon the properties of valid input defined by the  
23 input-description-data, wherein the generating acquires the properties for  
24 generating the set of instructions from the data structure.

1 20. (ORIGINAL) A method as recited in claim 19 further  
2 comprising transforming the input-description-data into a data structure

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4 21. (ORIGINAL) A method as recited in claim 20, wherein the  
5 data structure is in a hierarchical markup language.

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7 22. (CANCELED)

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9 23. (CANCELED)

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12 24. (ORIGINAL) A method as recited in claim 19 further  
13 comprising loading the set of instructions as an input filter.

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16 25. (ORIGINAL) A method as recited in claim 19, wherein the  
17 properties of valid input indicate parameters of input by defining boundary  
18 delimitations of such parameters and define assumptions regarding such  
19 parameters.

20  
21  
22 26. (ORIGINAL) A method as recited in claim 19, wherein during  
23 the obtaining, input-description-data is obtained from a user via a graphical user  
24 interface.

1 27. (ORIGINAL) A computer-readable medium comprising a set  
2 of instructions for filtering input, wherein such set of instructions has been  
3 automatically produced by the method as recited in claim 19.

4  
5 28. (ORIGINAL) An input filter of a computer having computer-  
6 executable instructions that, when executed, filter input, wherein such computer-  
7 executable instructions were automatically produced by the method as recited in  
8 claim 19.

9  
10 29. (ORIGINAL) A computer system comprising:  
11 an application program module configured to receive and respond to input  
12 provided by a computing component;  
13 an input filter module configured to receive input provided by a computing  
14 component for the application program module, filter the input, and pass the  
15 filtered input to the application program module,  
16 wherein the filter comprises one or more sets of instructions that, when  
17 executed, filter the input and such sets of instructions being automatically  
18 produced according to the method as recited in claim 19.

19  
20 30. (ORIGINAL) A computer system as recited in claim 29,  
21 wherein the computer system comprises a Web server.

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1       31. (ORIGINAL) A computer system as recited in claim 29,  
2 wherein the input filter module is further configured to receive input from the  
3 computing component via a communications network.

4  
5       32. (ORIGINAL) A computer comprising one or more computer-  
6 readable media having computer-executable instructions that, when executed by  
7 the computer, perform the method as recited in claim 19.

8  
9       33. (ORIGINAL) A computer-readable medium having computer-  
10 executable instructions that, when executed by a computer, performs the method  
11 as recited in claim 19.

12  
13       Claims 34-41 are CANCELED

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15  
16       42. (PREVIOUSLY PRESENTED) An automatic filter-  
17 instructions production system comprising:  
18

19           an user interface for obtaining input-description-data, which define the  
20 properties of valid input provided by a computing component;

21           a transformer configured to transform the input-description-data into a data  
22 structure;

23           a memory, wherein the memory is configured to store the data structure;

24           a filter-instructions automatic generator ("autogen") configured to  
25 automatically generate a set of instructions for filtering input provided by a

1 computing component based upon the properties of valid input defined by the  
2 input-description-data, wherein the filter-instructions autogen is further configured  
3 to acquire the properties from the data structure when automatically generating the  
4 set of instructions.

5  
6 **43. (CANCELED)**

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8 **44. (CANCELED)**

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10 **45. (CANCELED)**

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12 **46. (ORIGINAL)** A system as recited in claim 42, wherein the  
13 input-description-data indicate input parameters by defining boundary  
14 delimitations of such parameters and define assumptions regarding such  
15 parameters.

16  
17 **47. (ORIGINAL)** A computer-readable medium comprising a set  
18 of instructions for filtering input, wherein such set of instructions has been  
19 automatically produced by the system as recited in claim 42.

20  
21 **48. (ORIGINAL)** An input filter of a computer having computer-  
22 executable instructions that, when executed, filter input, wherein such computer-  
23 executable instructions were automatically produced by the system as recited in  
24 claim 42.

1           **49. (ORIGINAL)** A system as recited in claim 42, wherein the  
2            interface is a graphical user interface.

3  
4           **50. (PREVIOUSLY PRESENTED)** A system for facilitating  
5            the production of one or more sets of instructions, the system comprising:  
6            a memory comprising a set of computer program instructions; and  
7            a processor coupled to the memory, the processor being configured to  
8            execute the computer program instructions, which comprise:

9               obtaining input-description-data, which define the properties of valid  
10            input provided by a computing component;  
11               transforming the input-description-data into a data structure;  
12               storing the data structures in a persistent form;  
13               automatically generating a set of instructions for filtering input  
14            provided by a computing component based upon the properties of valid  
15            input defined by the input-description-data, wherein the generating acquires  
16            the properties for generating the set of instructions from the data structure.

17  
18           **51. (ORIGINAL)** A system as recited in claim 50, wherein the  
19            input-description-data indicate input parameters by defining boundary  
20            delimitations of such parameters and define assumptions regarding such  
21            parameters.

22  
23           **52. (CANCELED)**  
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1 53. (CANCELED)

2  
3 54. (ORIGINAL) A computer-readable medium having computer-  
4 executable instructions that, when executed by a computer, performs the method  
5 comprising:

6 obtaining input-description-data, which define the properties of valid input  
7 provided by a computing component;

8 automatically generating a set of instructions for filtering input provided by  
9 a computing component based upon the properties of valid input defined by the  
10 input-description-data.

11  
12 55. (ORIGINAL) A computer-readable medium as recited in  
13 claim 54, wherein the method further comprises loading the set of instructions as  
14 an input filter.

15  
16 56. (ORIGINAL) A computer-readable medium as recited in  
17 claim 54, wherein the input-description-data indicate input parameters by defining  
18 boundary delimitations of such parameters and define assumptions regarding such  
19 parameters.

20  
21 57. (ORIGINAL) An input filter comprising a computer-readable  
22 medium as recited in claim 54.

23  
24 58. (ORIGINAL) A computer comprising one or more computer-  
25 readable media as recited in claim 54.

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atty: Kasey C. Chinn

## **SPECIFICATION AMENDMENTS**

None.

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